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COWAN LIEBOWITZ & LATMAN P.C
JOHN J TORRENTE
1133 AVE OF THE AMERICAS
1133 AVE OF THE AMERICAS
NEW YORK, NY 10017

EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT PAPER NUMBER

2613

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/682,997

Applicant(s)

ISHIKAWA ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

ANDY RAO
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action of 9/7/04 is persuasive and, therefore, the finality of that action is withdrawn as it failed to address the newly added claims 43-46.
2. Applicant's arguments with respect to claims 29-42 and the newly added claims 43-46 as filed in Paper 41 on 12/01/03 have been considered but are moot in view of the new ground(s) of rejection based on newly cited portions of the previously used references addressing the newly added limitations and the newly added claims 43-46.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 29-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al., (hereinafter referred to as "Takizawa") in view of Lightbody et al., (hereinafter referred to as "Lightbody").

Takizawa discloses an image pickup system comprising: an image pickup device for forming a digital image signal (Takizawa: column 4, lines 10-15); a device recognition attribute information memory for storing device recognition attribute information (Takizawa: column 3, lines 9-12); an interface part arranged to communicate with the external apparatus (Takizawa:

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column 4, lines 57-60), wherein said interface part sends said device recognition attribute information to said external apparatus (Takizawa: column 3, lines 60-64), then said interface part receives said external control signal with which the digital image signal is controlled (Takizawa: column 3, lines 64-65) according to the result of recognition by said external apparatus (Takizawa: column 3, lines 51-62), as in claim 29. However, Takizawa fails to specifically disclose a color space information memory that stores color space information, a color bit number converting part as a part of the image pickup system, wherein said color space converting part is arranged to convert the color bit number of said digital image signal in response to an external signal from an external apparatus, wherein said color space converting part converts the color space of said digital image signal in response to an external color control signal from an external apparatus, as in the claim. Lightbody discloses the use of a plurality of a color space information memories (Lightbody: column 5, lines 20-23) and a color space converting means (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats..."), arranged to convert the color bit number (Lightbody: column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: "pixel resolution processing") for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody plurality of a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting means (Lightbody: column 5, lines 14-15), wherein the color space

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converting apparatus would be controlled in accordance with the external processing apparatus (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing apparatus for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable the Takizawa system to have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa system, now incorporating the Lightbody plurality of a color space information memory and a color bit number converting means as discussed above, has all of the features of claim 29.

Regarding claim 30, the Takizawa system, now incorporating the Lightbody plurality of a color characteristic information memory and a color space converting means as discussed above, has the color bit number converting means converting color space (Lightbody: column 5, lines 10-15), as in the claim.

Regarding claim 31, the Takizawa system, now incorporating the Lightbody plurality of a color characteristic information memory and a color space converting means as discussed above, has the external apparatus being a PC (Lightbody: column 2, lines 10-15), as in the claim.

Regarding claim 32, the Takizawa system, now incorporating the Lightbody plurality of a color characteristic information memory and a color space converting means as discussed above, is directly connectable with said PC (Lightbody: column 6, lines 35-45), as in the claim.

Takizawa discloses an image pickup method comprising: picking up an image to form a digital image signal (Takizawa: column 4, lines 10-15); storing device recognition attribute information in a device recognition attribute information memory (Takizawa: column 3, lines 9-12); sending said device recognition attribute information (Takizawa: column 4, lines 57-60) to

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said external apparatus through an interface part (Takizawa: column 3, lines 60-64); and receiving said external signal with which said digital image signal is controlled (Takizawa: column 3, lines 64-65) according to the result of recognition by said external apparatus (Takizawa: column 3, lines 51-62), as in claim 33. However, Takizawa fails to specifically disclose a step for storing a color space information in a color space information memory, and a step for color space converting as a part of the image pickup method, wherein said color space converting step is arranged to convert the color bit number of said digital image signal in response to an external signal from an external apparatus, wherein said color space converting step converts the color space of said digital image signal in response to an external signal from an external apparatus using said color space information, as in the claim. Lightbody discloses the use of a plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats..."), arranged to convert the color bit number (Lightbody: column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: "pixel resolution processing") for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-15), wherein the

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color space converting step would be controlled in accordance with the external processing apparatus (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing method for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable the Takizawa method to have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa method, now incorporating the Lightbody plurality of steps including a color space information storing step and a color bit number converting step as discussed above, has all of the features of claim 33.

Regarding claim 34, the Takizawa method, now incorporating the Lightbody plurality of steps including a color characteristic information storing step and a color space converting step as discussed above, has the color converting step converting color space (Lightbody: column 5, lines 10-15), as in the claim.

Takizawa discloses an image processing apparatus electrically connectable (Takizawa: column 3, lines 60-65) to an image pickup device that forms a digital image signal (Takizawa: column 4, lines 10-15), wherein said image pickup apparatus comprises a device recognition attribute information memory for storing device recognition attribute information (Takizawa: column 3, lines 9-12), and an interface part arranged to communicate with the external apparatus (Takizawa: column 4, lines 57-60), comprising: a communication part arranged to receive said device recognition attribute information from said image pickup apparatus to recognize said image pickup apparatus (Takizawa: column 3, lines 60-64); a recognizing part arranged to recognize the image pickup apparatus in response to said device recognition attribute information (Takizawa: column 3, lines 64-65); and a control part arranged

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to send the external signal to said image pickup apparatus through said communication part to control said digital image signal according to a result of recognition by said recognition by said recognizing part (Takizawa: column 3, lines 51-62), as in claim 35. However, Takizawa fails to specifically disclose a step for storing a color space information in a color space information memory, and a step for color space converting as a part of the image pickup method, wherein said color space converting step is arranged to convert the color bit number of said digital image signal in response to an external signal from an external apparatus, wherein said color space converting step converts the color space of said digital image signal in response to an external signal from an external apparatus using said color space information, as in the claim. Lightbody discloses the use of a plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats..."), arranged to convert the color bit number (Lightbody: column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: "pixel resolution processing") for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-15), wherein the color space converting step would controlled in accordance with the external processing

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apparatus (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing method for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable to Takizawa method have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa method, now incorporating the Lightbody plurality of steps including a color space information storing step and a color bit number converting step as discussed above, has all of the features of claim 35.

Regarding claim 36, the Takizawa system, now incorporating the Lightbody plurality of a color characteristic information memory and a color space converting means as discussed above, has the color bit number converting means converting color space (Lightbody: column 5, lines 10-15), as in the claim.

Takizawa discloses an image processing method for processing a digital image signal received from an image pickup device that forms a digital image signal (Takizawa: column 4, lines 10-15), wherein said image pickup apparatus comprises a device recognition attribute information memory for storing device recognition attribute information (Takizawa: column 3, lines 9-12), and an interface part arranged to communicate with the external apparatus (Takizawa: column 4, lines 57-60), comprising: receiving said device recognition attribute information from said image pickup apparatus to recognize said image pickup apparatus (Takizawa: column 3, lines 60-64); recognizing the image pickup apparatus in response to said device recognition attribute information (Takizawa: column 3, lines 64-65); sending the external control signal to said image pickup apparatus through said communication part to control said digital image signal according to a result of recognition by said recognition by said recognizing

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part (Takizawa: column 3, lines 51-62), as in claim 37. However, Takizawa fails to specifically disclose a step for storing a color space information in a color space information memory, and a step for color space converting as a part of the image pickup method, wherein said color space converting step is arranged to convert the color bit number of said digital image signal in response to an external signal from an external apparatus, wherein said color space converting step converts the color space of said digital image signal in response to an external signal from an external apparatus using said color space information, as in the claim. Lightbody discloses the use of a plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-25: “variety of R,G,B, encoding output formats...”), arranged to convert the color bit number (Lightbody: column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: “pixel resolution processing”) for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody plurality of steps including storing a color space information in a color space information memory (Lightbody: column 5, lines 20-23) and a color space converting step (Lightbody: column 5, lines 14-15), wherein the color space converting step would be controlled in accordance with the external processing apparatus (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing method for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as

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downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable to Takizawa method have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa method, now incorporating the Lightbody plurality of steps including a color space information storing step and a color bit number converting step as discussed above, has all of the features of claim 37.

Regarding claim 38, the Takizawa method, now incorporating the Lightbody plurality of steps including a color characteristic information storing step and a color space converting step as discussed above, has the color converting step converting color space (Lightbody: column 5, lines 10-15), as in the claim.

Regarding claims 39-42, the Takizawa-Lightbody combination discloses that said color characteristic information memory stores a plurality of kinds of color characteristic information (Lightbody: column 5, lines 15-20- “a variety of RGB encoding outputs”; column 4, lines 15-32), as in the claims.

Takizawa discloses image pickup apparatus comprising: an image sensor that converts an optical image into an image signal (Takizawa: column 4, lines 10-15); a color bit number converting circuit that converts color bit number according to a conversion memory; and an interface that receives an external instruction (Takizawa: column 3, lines 60-64). However, Takizawa fails to specifically disclose a color bit number converting converter that converts a color bit number according to a conversion memory, as in the claim. Lightbody discloses the use of a color space converting means for converting a color bit number according (Lightbody: column 5, lines 14-25: “variety of R,G,B, encoding output formats...”) to a conversion memory (Lightbody: column 5, lines 20-23) and arranged to convert the color bit number (Lightbody:

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column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: "pixel resolution processing") for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody color space converting means for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory (Lightbody: column 5, lines 20-23), wherein the color space converting apparatus would be controlled in accordance with the external processing apparatus (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing apparatus for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable the Takizawa system to have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa system, now incorporating the Lightbody color space converting means for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory (Lightbody: column 5, lines 20-23), has all of the features of claim 43.

Regarding claim 44, the Takizawa system, now incorporating the Lightbody color space converting means for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory includes a lookup table (Lightbody: column 5, lines 20-23), as in the claim.

Takizawa discloses image pickup method comprising: image sensing by converting an optical image into an image signal (Takizawa: column 4, lines 10-15); a color bit number converting circuit that converts color bit number according to a conversion memory; and an interface that receives an external instruction (Takizawa: column 3, lines 60-64). However, Takizawa fails to specifically disclose a color bit number converting step that converts a color bit number according to a conversion memory, as in the claim. Lightbody discloses the use of a color space converting step for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory (Lightbody: column 5, lines 20-23) and to convert the color bit number (Lightbody: column 5, lines 35-41) of said digital image signal (Lightbody: column 4, lines 15-25; column 5, lines 1-5) in response to an external signal sent from an external apparatus using said color space information (Lightbody: column 3, lines 35-40) in order to reduce an amount of image signals (Lightbody: column 5, lines 20-25: "pixel resolution processing") for output to a plurality of external devices (Lightbody: column 5, lines 42-53) for video editing applications (Lightbody: column 6, lines 43-65). It would have been obvious for one of ordinary skill in the art to incorporate the use of the Lightbody color space converting step for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory (Lightbody: column 5, lines 20-23), wherein the color space converting step would be controlled in accordance with the external processing method (Lightbody: column 4, lines 15-25; column 5, lines 1-5) for use in an image processing method for output to a plurality of external devices (Lightbody: column 5, lines 42-53) as downloadable into the Takizawa program memory from the external interface (Takizawa: column 4, lines 52-63) in order to enable to

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Takizawa method have the capability for video editing applications (Lightbody: column 6, lines 43-65). The Takizawa method, now incorporating the Lightbody color space converting step for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory (Lightbody: column 5, lines 20-23), has all of the features of claim 45.

Regarding claim 46, the Takizawa method, now incorporating the Lightbody color space converting step for converting a color bit number according (Lightbody: column 5, lines 14-25: "variety of R,G,B, encoding output formats...") to a conversion memory includes a lookup table (Lightbody: column 5, lines 20-23), as in the claim.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

asr
March 25, 2004

ANDY RAO
PRIMARY EXAMINER